

PATENT COOPERATION TREATY

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

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PCT

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4 PCT 2004

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year) 30.09.2004

| | | |
|----------------------------------------------------------|----------------------------------------------------------|----------------------------------------------|
| Applicant's or agent's file reference AL 299 PCT/Kr/K | IMPORTANT NOTIFICATION | |
| International application No. PCT/EP 03/06901 | International filing date (day/month/year) 27.06.2003 | Priority date (day/month/year) 05.07.2002 |
| Applicant CORUS TECHNOLOGY BV et al. | | |

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

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| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Novoa, C Tel. +49 89 2399-2718 |
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PATENT COOPERATION TREATY
PCT
INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

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|------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Applicant's or agent's file reference AL 299 PCT/Kr/K | FOR FURTHER ACTION | | See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) |
| International application No. PCT/EP 03/06901 | International filing date (day/month/year) 27.06.2003 | Priority date (day/month/year) 05.07.2002 | |
| International Patent Classification (IPC) or both national classification and IPC C22B21/06 | | | |
| Applicant CORUS TECHNOLOGY BV et al. | | | |

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| <p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 2 sheets.</p> |
| <p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the opinion II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application |

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|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| Date of submission of the demand 18.12.2003 | Date of completion of this report 30.09.2004 |
| Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465 | Authorized Officer Patton, G Telephone No. +49 89 2399-2059 |



INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

International application No. PCT/EP 03/06901

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-9 as originally filed

Claims, Numbers

1-13 filed with telefax on 23.07.2004

Drawings, Sheets

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.: 14
- the drawings, sheets:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/EP 03/06901

5. This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

| | | |
|-------------------------------|-------------|------|
| Novelty (N) | Yes: Claims | 1-13 |
| | No: Claims | |
| Inventive step (IS) | Yes: Claims | 1-13 |
| | No: Claims | |
| Industrial applicability (IA) | Yes: Claims | 1-13 |
| | No: Claims | |

2. Citations and explanations

see separate sheet

PART V - Novelty and inventive step (Art. 33(2)-(3) PCT)

The amendments requested by the applicant fulfill the requirements of Art. 34(2)b) PCT.

1. The present application meets the requirements of Art. 33(2)-(3) PCT for the reasons explained below.

2. Reference is made to the following documents:

D1: PATENT ABSTRACTS OF JAPAN vol. 007, no. 205 (C-185), 9 September 1983 -& JP-A-58 104132

D2: PATENT ABSTRACTS OF JAPAN vol. 008, no. 114 (C-225), 26 May 1984 -& JP-A-59 028538

2.1. D1 discloses a method for fractional crystallisation of an at most partially solidified molten metal such as aluminium in which a layer of at most partially solidified molten metal to be crystallized is cooled by a layer of cooling medium which is present below the layer of at most partially solidified molten metal in a pipe (4) so as to crystallise the molten metal (D1, abstract, figures 1-2).

2.2. Similarly, D2 discloses a method for fractional crystallisation of an at most partially solidified molten metal such as aluminium in which a layer of at most partially solidified molten metal to be crystallized is cooled by a layer of cooling medium which is present below the layer of at most partially solidified molten metal in a pipe (5) so as to crystallise the molten metal (D1, abstract, figures 1-3).

3. Independent claim 1

According to the closest prior art D1 (or D2) as discussed above, the subject-matter of claim 1 is novel since neither D1 nor D2 disclose that the cooling medium is a liquid which contacts the layer of at most partially solidified molten metal.

The distinguishing feature solves the objective technical problem of providing a method for fractional crystallisation in which an accurate control of the molten metal temperature is enabled and the adherence to the wall is decreased (see page 2, line 9 to page 3, line 19).

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/EP 03/06901

Since none of the available prior art document discloses or renders obvious the distinguishing feature so that the problem is solved, inventive step is also acknowledged for the subject-matter of claim 1.

4. Dependent claims 2-13

Claims 2-13 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step.